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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/183,380 | 10/30/1998 | EVERT M. BOSMA | PHN-16-611 | 3061 |

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01/16/2004

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| EXAMINER |
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TRAN, CON P

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| ART UNIT | PAPER NUMBER |
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2644

DATE MAILED: 01/16/2004

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/183,380

Applicant(s)

BOSMA ET AL.

Examiner

Con P. Tran

Art Unit

2644

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 October 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 October 1998 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

1. In view of the appeal brief filed on 10-28-03, PROSECUTION IS HEREBY REOPENED. New grounds of rejection are set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,

(2) request reinstatement of the appeal.

If reinstatement of the appeal is requested, such request must be accompanied by a supplemental appeal brief, but no new amendments, affidavits (37 CFR 1.130, 1.131 or 1.132) or other evidence are permitted. See 37 CFR 1.193(b)(2).

Priority

2. Acknowledgment is made of applicants' claim for foreign priority under 35 U.S.C. 119(a)-(d). The certified copy has been filed in parent Application No. 97203329.4, filed on October 31, 1997.

Drawings

3. It should be noted that the drawings are objected to because block "6" and "10" should be labeled as "transmission circuit" and "signal energy detector" respectively.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. **Claims 1-4, and 10** are rejected under 35 U.S.C. 102(b) as being anticipated by Fellows U.S. Patent 4,309,664.

Regarding **claims 1 and 10**, Fellows teaches a wire-bound telecommunication device (see Fig. 1, 2, and respective portions of the specification), comprising:

terminals (transmission line 19 and ground terminal, Fig. 1; col. 5, lines 17-28) for coupling the device to a subscriber line of a telecommunication network (col. 4, lines 31-36), a transmission circuit (including power transistor 54, Fig. 2; col. 5, lines 42-48), and a signal detecting arrangement (energy level detector 21, Fig. 1) that is configured to determine a time-domain signal representing signal energy of substantial entirety of the signal on the subscriber line in a time interval (see col. 4, lines 50-63). Fellows thus discloses all the claimed limitations.

Regarding **claim 2**, Fellows further teaches (see Fig. 1, 2, and respective portions of the specification) the signal energy is determined cyclically (see col. 5, line 62 – col. 6, line 7).

Regarding **claim 3**, Fellows further teaches (see Fig. 1, 2, and respective portions of the specification) the signal energy determination is initiated by a trigger pulse (see col. 4, line 64 – col. 5, line 9).

Regarding **claim 4**, Fellows further teaches (see Fig. 3, 4, 5 and respective portions of the specification) the telecommunication device operates according to a given signal protocol (e.g., turning on dial tone), the signal energy being determined during at least one predetermined expected signal interval (see col. 5, line 62 – col. 6, line 7).

6. **Claims 1-7, and 10** are rejected under 35 U.S.C. 102(b) as being anticipated by Cai et al. U.S. Patent 5,550,908 (hereinafter, "Cai").

Regarding **claims 1 and 10**, Cai teaches (see Fig. 1, 2, 3, and respective portions of the specification) a wire-bound telecommunication device (100) comprising: terminals for coupling the device to a subscriber line (tip/ring 106) of a telecommunication network; a transmission circuit (DTMF tone generator 103); and a signal detecting arrangement (alerting signal receiver 102, modem processor 126), that is configured to determine a time-domain signal (i.e., alerting signal sequence; Fig. 2; col. 5, lines 26-34) representing signal energy (e.g., carrier energy) of substantial entirety of the signal on the subscriber line in a time interval (e.g., 80-85ms; Fig. 2; see col. 6, lines 61-52; step 305, Fig. 3).

Regarding **claim 2**, Cai further teaches (see Fig. 1, 2, 3, and respective portions of the specification) the signal energy is determined cyclically (e.g., 80-85ms; Fig. 2; see col. 6, lines 61-52; step 305, Fig. 3).

Regarding **claim 3**, Cai teaches a wire-bound telecommunication device as claimed in claim 1. In Figure 2, it is shown that a Customer premises equipment Alerting Signal (CAS, 202) has duration of 80-85ms. To determine the presence of a valid CAS in the subscriber line, as disclosed in Figure 3, step 307, an alerting signal sequence must meet energy and duration (e.g., 80-85ms) specifications. Thus, Alerting signal receiver 102 and modem processor 126 inherently constitute a "trigger pulse" to initiate a signal energy determination process (Figure 1; col. 4, line 56 – col. 5, line 4).

Regarding **claims 4-5**, Cai further teaches (see Fig. 1, 2, 3, and respective portions of the specification) the telecommunication device operates according to a caller identification signal protocol (e.g., caller identity delivery on call waiting, CIDCW), the signal energy being determined during at least one predetermined expected signal interval comprises tone alerting signal (i.e., Customer premises equipment Alerting Signal, CAS; col. 3, lines 30-37; col. 5, lines 24-35).

Regarding **claim 6**, Cai further teaches (see Fig. 1, 2, 3, and respective portions of the specification) the signal energy determination is continued until a further expected

signal interval comprising a caller identification signal (caller identity CID signal, e.g., FSK data; Fig. 2; col. 5, lines 24-35).

Regarding **claim 7**, Cai further teaches (see Fig. 1, 2 and respective portions of the specification) a caller identification signal detector (caller identity information receiver 102, modem processor 126), is inherently initiated by an initiating pulse, which is generated a predetermined time after the detection of the tone alerting (e.g., such that the total elapsed time from the beginning of the SAS signal 200 to the beginning of the FSK data 206 is from approximately 535 milliseconds to 1170 milliseconds; Fig. 2; col. 5, lines 36-51).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. **Claim 8** is rejected under 35 U.S.C. 103(a) as being unpatentable over Cai et al. U.S. Patent 5,550,908 (hereinafter, "Cai") in view of Brady et al. U.S. Patent 6,122,353 (hereinafter, "Brady").

Regarding **claim 8**, Cai teaches a wire-bound telecommunication device as recited in claim 7, However, Cai does not explicitly disclose the initiation pulse controls switching of an impedance parallel to the subscriber line.

Brady teaches during processing of the CAS, the load switching circuit (24) is connected to the transmission channel (2) in parallel with the telephone (1). The control circuit (6) controls the load switching circuit (24) to apply a load in parallel with the telephone (1) just prior to suppressing the local signal (see Fig. 1, 2B and respective portions of the specification; col. 8, lines 13-23).

It would have been obvious to one of ordinary skill in the art at the time the invention was made incorporate such load matching of Brady teaching with the wire-bound telecommunication device of Cai for purpose of reduces the effect of a sudden disruption of loop current, as suggested by Brady in column 8, lines 23-24.

9. **Claim 9** is rejected under 35 U.S.C. 103(a) as being unpatentable over Cai et al. U.S. Patent 5,550,908 (hereinafter, "Cai") in view of Fellows U.S. Patent 4,309,664.

Regarding **claim 9**, Cai teaches a wire-bound telecommunication device as recited in claim 1, However, Cai does not explicitly disclose the energy determination is used for monitoring subscriber line load variations.

Fellows teaches digital line sensor that can detect any digital transmission from a digital telephone, and can sense alternating current or digital signals (col. 3, lines 38-44).

It would have been obvious to one of ordinary skill in the art at the time the invention was made incorporate a digital line sensor of Fellows teaching with the wire-bound telecommunication device of Cai for purpose of providing a digital line sensor which is capable of operation with low current drain, noise immunity and simplicity of design as suggested by Fellows in column 3, lines 45-48.

Response to Arguments

10. Applicant's arguments with respect to claims 1-10 have been considered but are moot in view of the new grounds of rejection.

Conclusion

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Con P. Tran whose telephone number is 703-305-2341. The examiner can normally be reached on M-F (8:30-5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Forester W. Isen can be reached on (703) 305-4386. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9314 for regular communications and 703-872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Customer Service Office at telephone number 703-306-0377.

cpt CPJ
January 12, 2004


XU MEI
PRIMARY EXAMINER